

Summary of Response to Feedback on Environmental Baseline Study for the Ulu Pandan site (also referred to as Dover Forest)

I. Overview: Approach to planning and greenery

The Government takes a holistic and long-term approach to urban planning, to balance social, environmental and economic considerations, and judiciously steward Singapore's scarce land resources to guide sustainable development and meet the needs of current and future generations. This involves addressing trade-offs across a wide variety of land-use needs, including for housing, green spaces, infrastructure, community facilities, amongst others.

The Government is committed to continue providing park spaces and greenery that serve to meet our recreational needs and provide relief as we develop. When there is a need to develop greenfield and vegetated sites, we will carry out environmental studies to better understand the topography, hydrology, flora and fauna of the area so that we are able to take a science-based approach towards greenery and wildlife management, and inform us on our planning and development strategy for the area. This process will help to improve how we co-exist with nature and wildlife. Any decision to proceed is made only after such studies and engagement with stakeholders are carried out.

Currently, we continue to see high demand for public housing, especially in mature estates. This is driven partly by marriage and family formation, as well as a growing number of smaller households. To meet this demand, agencies would adopt a range of development options such as increasing the density of developments while ensuring liveability, and prioritising the development of brownfield sites, where possible. Hence a balanced approach is adopted, in retaining nature areas based on a science-based approach and meeting land-use needs.

II. Site context & milestones

The Ulu Pandan site, known to the public as 'Dover Forest', is about 33 hectares and has been zoned 'Residential (Subject to Detailed Planning)' since the Master Plan 2003 (see Figure 1).

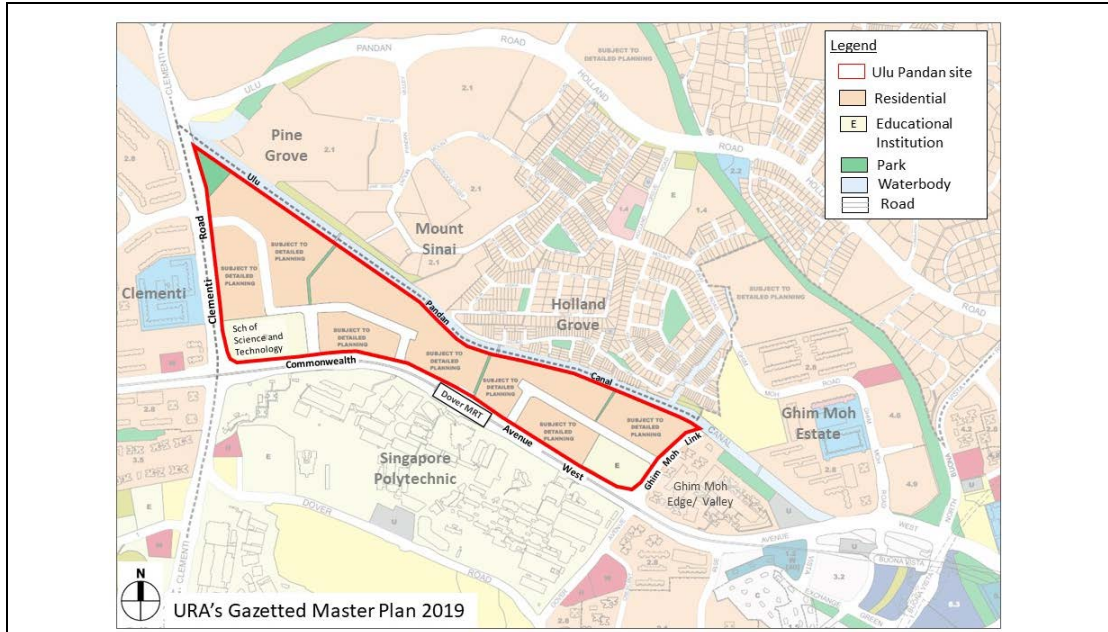


Figure 1: Zoning of the Ulu Pandan site (Dover Forest) According to Master Plan 2019

In 2017, HDB engaged an external consultant to conduct an Environmental Baseline Study (EBS) (for more details, please see the full report [here](#)). The purpose was to better understand the existing topography, hydrology, flora and fauna, to guide HDB's development plans in a way that would mitigate the potential environmental impact.

The key EBS findings are summarised below:

- i. The western side of Ulu Pandan is richer in biodiversity. It has more large trees of significance and threatened flora species, and are likely native to Singapore. 3 clusters or 27 large trees of significance (e.g. *Ficus virens*) were identified, mostly within the western part of the site (see Figure 2 in the next page).

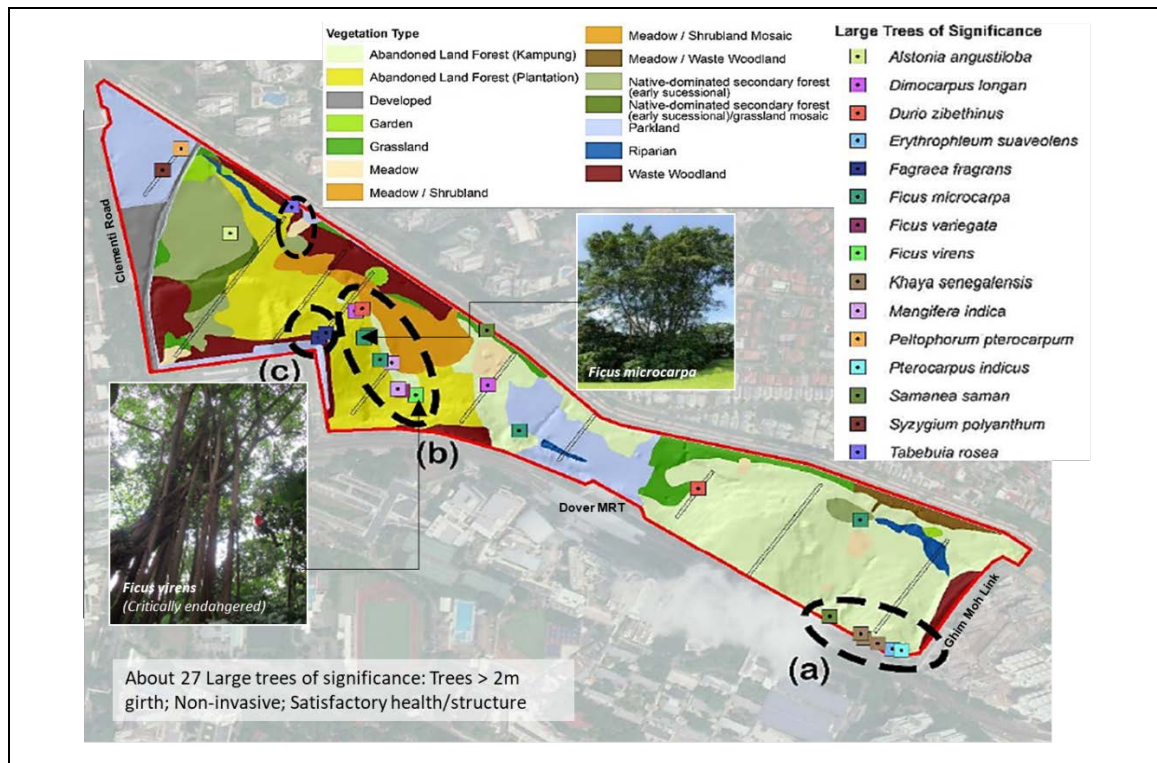


Figure 2. Flora Condition

- ii. The site serves as a stepping stone for wildlife movement to other green spaces; 158 species of fauna were recorded in the site, 18 of which¹ are considered locally near threatened or threatened;
- iii. The general bank characteristics for the 4 earth streams, concrete stormwater drain and Ulu Pandan Canal vary from hard-edged concrete to natural banks, with varying vegetation. In particular, one of the streams (i.e. Stream 1) at the eastern half of the site has natural bank features consisting of secondary forest and swamp vegetation which makes it a suitable habitat for some aquatic species (see Figure 3 in the next page).

¹ Out of the 18 recorded species which are considered locally near threatened or threatened, 7 of these species are Critically Endangered (i.e. Glossy Swiftlet), Endangered (i.e. Changeable Hawk-Eagle, Blue-crowned Hanging Parrot, Violet Cuckoo, Oriental Magpie-Robin, Asian Softshell Turtle) and Vulnerable (i.e. Grey Heron). Figure 3 provides the location of these species except for the Changeable Hawk-Eagle, Blue-crowned Hanging Parrot and the Violet Cuckoo which were flying over at different points throughout the area during the study period.



Figure 3. Fauna & Hydrology Condition

III. Engagement with stakeholders

Together with NParks and URA, HDB carried out several engagements with stakeholders representing various interests, including Grassroots Adviser and Nature Groups. These sessions provided opportunities for the various parties to come together to share their perspectives and reach a common understanding on Singapore’s land-use needs and challenges, and to co-create solutions to address the various concerns.

The EBS report was also published online for public feedback from 20 Dec 2020 to 16 Jan 2021. Due to keen public interest, HDB extended the public feedback period by another 4 weeks, from 1 Feb to 1 Mar 2021. In total, we received around 1,800 responses via HDB’s feedback channels.

IV. Feedback received

We value the feedback from our partners and members of the public and have considered every suggestion that has been submitted. Many have voiced support for preserving at least some parts of the ‘Dover Forest’; some have asked us to conduct in-depth environmental impact assessments and intensify development on brownfield sites or consider alternative sites for housing; others expressed their support for development of new housing in the area for young couples to meet continued demand, and hoped to see a balance of housing and greenery in the area.

We also received several detailed land-use proposals from members of public as well as the nature community. The suggestions include:

- Retaining important biodiversity, such as large trees of significance at the western side of Dover Forest, as well as the existing stream at the eastern side;
- Reducing the area used for housing and increasing the area for parks;
- Introducing landscaping and recreational facilities along Ulu Pandan Canal;
- Naturalising the Ulu Pandan Canal; and
- Providing a green corridor next to the canal to maintain ecological connectivity.

V. Responses to feedback

We have always been mindful of the need to develop housing areas sensitively, to mitigate potential environmental impact. Taking into consideration the EBS findings and all the feedback we have received, we have further refined our urban planning and design strategies for the Ulu Pandan site.

We have looked into the public's suggestions to develop alternative brownfield land parcels in the vicinity of the Ulu Pandan site. Some land parcels are already planned and staged for housing in the near-term, while others are either unavailable as they have existing uses or have already been safeguarded for other uses, including housing. One example is the vacant plot of land along Ghim Moh Road, which previously housed HDB blocks that have since been relocated under the Selective En bloc Redevelopment Scheme (SERS). This site is already planned for public housing development in 2022. Additionally, there were requests to redevelop and intensify the nearby existing HDB flats in Ghim Moh through SERS. However, SERS is implemented on a highly selective basis, and not all precincts will be feasible for SERS². Furthermore, any land freed up from redevelopment through SERS will only be available in the longer term, and will not be available to meet immediate-term housing needs. Thus, after exhausting all the available options and taking into account the available sites for residential use, agencies have assessed that there is still a need to launch housing in part of the Ulu Pandan site to meet the population's housing needs in the immediate term.

NParks' Ecological Profiling Exercise (EPE) showed that an ecological connection could be established in the Clementi-Ulu Pandan area to balance the connectivity from Clementi Forest to the Southern Ridges, through Ulu Pandan. Hence, in consideration of the EBS and EPE findings, as well as feedback from the Nature Groups and public, a sizeable nature park will be safeguarded in the western part of Ulu Pandan that will serve as a stepping stone for ecological connectivity. The optimal size and boundary of this nature park will be subject to study. The western part of the Ulu Pandan site (after Dover MRT station to Clementi Road) will be left undeveloped in the medium term and the plans for this parcel will be reviewed again in about 10 years' time. Meanwhile, agencies will work with the community to carry out forest restoration and habitat enhancement works, to strengthen the area's ecological resilience.

² The identification of suitable precincts for SERS involves a thorough evaluation of its feasibility and consideration of various factors on a site-by-site basis, such as the redevelopment potential and the availability of land for rehousing.

To meet the current strong demand for public housing, the eastern half of the Ulu Pandan site (from Ghim Moh Link to Dover MRT station) will be developed in the immediate-term (see Figure 4). The demand for new HDB flats has increased in recent years, with the overall number of applications received per BTO flat increasing from 2.3 in 2017 to 5.8 in 2020, and even higher in mature estates, from 2.8 times in 2017 to 6.7 times in 2020. The site on the eastern half will provide housing to meet the strong demand for BTO flats in the immediate term, especially in mature estates like Queenstown where there has not been a BTO launch for the past eight years. This will also give families who are looking for a HDB flat more options to live near their parents/parents-in-law in the area (e.g. Ghim Moh/Ulu Pandan/Farrer) for better mutual care and support.

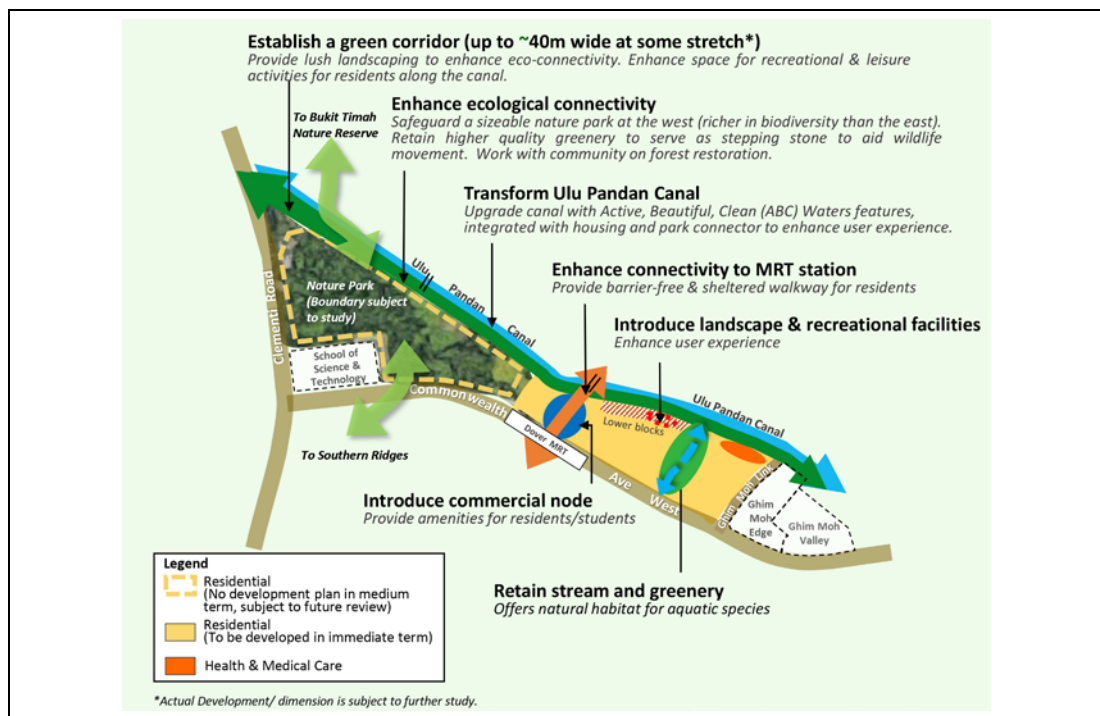


Figure 4: Conceptual Plan for the Ulu Pandan site

In addition to the nature park, we are proposing to set aside approximately 5 hectares of greenery on the eastern side of the Ulu Pandan site and along the canal for park and recreational use. This would be a 5-fold increase from the 0.9 hectares gazetted in URA's Master Plan 2019. HDB has adopted several key ideas in essence, and the measures include:

- A) Green corridor along Ulu Pandan Canal comprising a linear park (varying width of up to about 22 metres wide), landscaped precinct green space within the public housing parcels and landscaped portion of the Ulu Pandan Canal:** This will facilitate wildlife movement along Sungei Ulu Pandan, while also providing space for recreational and leisure activities along the canal.
- B) Enhanced ecological connectivity at western part of the site:** There will be a sizeable nature park safeguarded within the western part of the Ulu Pandan site (after Dover MRT to Clementi Road), which is richer in biodiversity than the east.
- C) Transformation of Ulu Pandan Canal:** Ulu Pandan Canal will be upgraded to enhance flood protection, and there are plans to introduce Active, Beautiful, Clean

(ABC) Waters features at some stretches in tandem with the upgrading of the canal. These enhancements will improve the overall experience along the canal and Park Connector, to bring about a better blue-green experience for existing and future residents of the area.

- D) Optimisation of existing vacant land next to MRT station:** The vacant land at Dover MRT station would be developed for housing with commercial facilities, providing facilities and easy access for future and existing residents living in the vicinity.
- E) Recreational facilities will be provided along the green corridor. The linear park will be designed with a wider Park Connector:** This would provide recreational facilities for both existing and future residents, as well as members of the public to enjoy.
- F) Retention of the existing stream on the eastern part of the site:** With a riparian buffer on both sides (up to 20 metres), this offers an ideal habitat for aquatic biodiversity, while adding to the greenery at the site.
- G) Implementation of Environmental Monitoring and Management Plan (EMMP):** HDB will engage a specialist EMMP consultant to develop an EMMP which will mitigate and manage any potential environmental impact arising from development works, and closely monitor the works from start to end; and
- H) Biophilic design of future developments:** Guided by the Biophilic Town Framework which aims to better integrate nature and the urban environment, greenery would be woven throughout the developments in the Ulu Pandan site;

As land use plans are not static, the Government will regularly review our plans to ensure that they remain relevant to the changing needs of Singaporeans, and would only trigger development or launch sites when necessary and various options have been considered. As responsible land stewards, agencies will continue to assess our various land use needs and engage stakeholders when we review the plans for the western half of the site in future.